City of Detroit

CITY COUNCIL

ANNE MARIE LANGAN DEPUTY DIRECTOR (313) 224-1078

IRVIN CORLEY, JR. DIRECTOR (313) 224-1076

FISCAL ANALYSIS DIVISION
Coleman A. Young Municipal Center
2 Woodward Avenue, Suite 218
Detroit, Michigan 48226
FAX: (313) 224-2783
E-Mail: irvin@cncl.ci.detroit.mi.us

TO:

COUNCIL MEMBERS

FROM:

Irvin Corley, Jr., Director JCA.

DATE:

April 7, 2008

RE:

Additional Documentation from the Greater Detroit Resource Recovery Authority *Line Item 40 on Today's Public Health and*

Safety Standing Committee Agenda

I received two CDs from Mr. John Prymack, Director of the Greater Detroit Resource Recovery Authority (GDRRA) on April 2nd that contain what I believe are the remaining documents the Fiscal Analysis Division requested for that relates to the GDRRA/Resource Recovery Facility (RRF) transaction. I appreciate getting this information.

The documents are voluminous; <u>Attachment I</u> represents the documents contained in the disks. So, as a courtesy, I have requested that Mr. Prymack produce copies of the CDs with documents for Council members, the City Clerk, Research and Analysis, City Planning Commission, the Auditor General, the Ombudsperson, the Chief Financial Officer, the Budget Director and Kerwin Wimberly, Mayor's Office. It is my hope everyone could receive the CDs as soon as possible this week.

Meanwhile, <u>Attachment II</u> represents Mr. Pymack's cover memo that accompanied the CDs. In summary, his memo indicates:

- 1. The Administration is still collecting information to assist in Council's deliberation concerning GDRRA/RRF's future.
- The GDDRA board has authorized a consultant to develop an RFP for landfill, transfer, hauling and recycling services to best determine should the RRF remain in operation or not. Responses to the RFP would provide information essential to any cost/benefit analysis.
- 3. To better determine the condition of the RRF and any future retrofit needs, the GDDRA board has selected an additional consultant to perform this analysis and to prepare an RFP for potential operators of the facility if it is

decided to continue its operations. Bonds may be necessary to finance any major retrofit project.

- 4. GDRRA does have an appraisal of the RRF, but wishes to keep it confidential until negotiations are completed.
- 5. Emission control reports accompany Mr. Prymack's cover memo.
- 6. The Administration needs the information from the consultants referenced above, the price the RRF could be reacquired from the current owners, and the how, in what form and at what price the energy produced by the facility after July 1, 2009 would be sold in order provide its position paper, including any of the various annual operating models, for Council's review.
- 7. The Administration acknowledges that deadlines are tight, and will be seeking to adjust them so that it, along with the City Council, can have sufficient time to make an informed decision (emphasis added).

Based on this information, your Honorable Body needs to understand the following:

- Who are the consultants, what are the costs of their services, how will they
 get paid, and what are the timelines for getting their results/deliverables? It
 seems the timelines should certainly be before June 1, 2008. A copy of the
 RFPs should be given to Council.
- How soon may City Council be informed about the possibility of adjusting the deadlines, especially the June 1, 2008 one concerning the Covanta lease, in order to allow Council more time to deliberate over the future of the GDDRA/RRF?

It would be great to get responses to these questions as soon as possible this week.

Attachments

cc: Council Divisions

Auditor General's Office Ombudsperson's Office

Anthony Adams, Deputy Mayor

Cathy Square, Chief Operating Officer

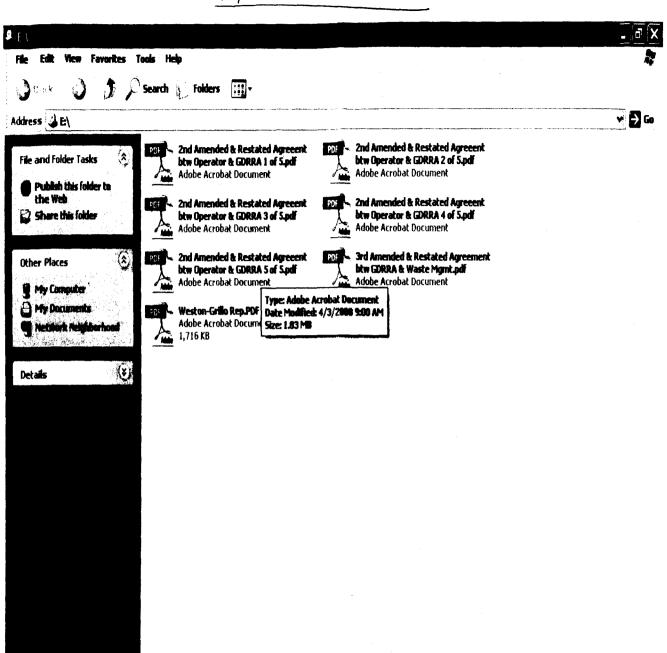
John Prymack, Director of the Greater Detroit Resource Recovery Authority

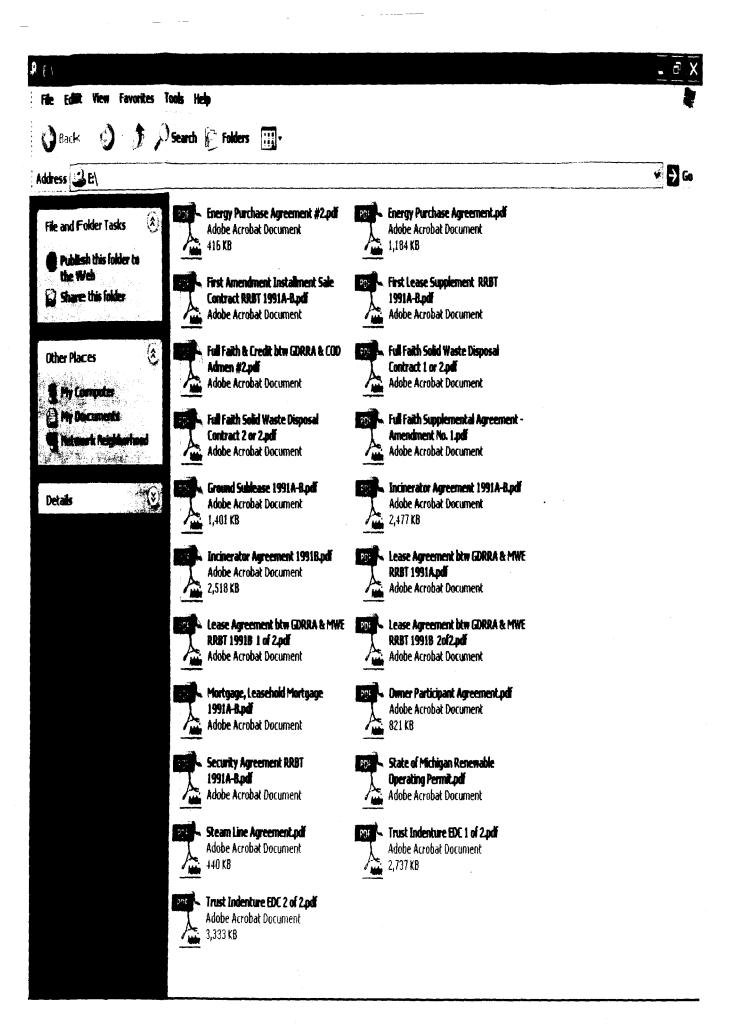
Norman White, Chief Financial Officer

Pamela Scales, Budget Director

Kerwin Wimberly, Mayor's Office

Attachment I





Attach ment II
GREATER DETROIT

RESOURCE RECOVERY AUTHORITY

5700 Russell Street • Administration Building • Detroit, Michigan 48211-2545 (313) 876-0449 • Fax (313) 876-0457

April 2, 2008

Mr. Irvin Corley, Jr.
Director
Fi scal Analysis Division
Detroit City Council
2 Woodward Avenue, Suite 218
Detroit, MI 48226

Re: Response to Questions Contained in Memo dated March 26, 2008

Dear Mr. Corley:

We have received your request for documents dated March 26, 2008 and have enclosed two CDs containing the documents requested. We also understand and appreciate your desire for a position paper. We are still in the process of collecting information of the type you have requested to assist in your evaluation of the future of GDRRA and the resource recovery facility. We agree that the answers to your questions are relevant to the decisions which need to be made and indeed are seeking the same information for the purpose of recommending a course of action.

Consistent with the administration's interest in exploring alternative method of waste disposal, after a competitive process, the Authority Board has authorized a consultant to develop an RFP for landfill, transfer, hauling and recycling services under two different scenarios: with and without the Facility continuing to operate. The responses to the RFP will provide information essential to the cost/benefit analysis. This consultant has assisted several Southeast Michigan communities with similar analyses.

Further, while we have some information assessing the current condition of the facility and future retrofit needs if it is to continue to operate past July 1, 2009. We have concluded that more analysis is better and required to test and refine that analysis. Therefore the Authority Board has also selected an additional consultant to perform that analysis and then to prepare an RFP for potential operators of the Facility in the event the decision is made to continue to operate. The consultant has extensive experience with waste-to-energy facilities, particularly those which combust refuse-derived fuel, including the Honolulu plant which is a sister plant to GDRRA.

If the decision is made to continue to use and retrofit the Facility, depending on the cost of the retrofit, there may be a recommendation to finance the retrofit through the issuance of bonds. It is too early to say whether that recommendation will be made or how extensive the retrofit may be. We understand Council's concern about timing involved in this process, but the timelines were negotiated long before the current administration carne into office.

We have obtained an appraisal. Until a decision is made whether to purchase the facility we would like to keep it confidential. If you are willing to maintain that confidentiality we are willing to share it with you.

The Facility's waste-to-energy emissions results comply with EPA's most stringent standards. The Facility also continues to operate well below permitted levels and is not injurious to the health of Detroit citizens. According to the EPA, "all waste-to-energy facilities comply with EPA's maximum achievable control technology (MACT) standards. After analyzing the inventory of waste-to-energy emissions, EPA concluded that waste-to-energy facilities produce electricity with less environmental impact than almost any other source of electricity." The emissions control results you requested are enclosed with this letter.

Until we have received the other information referenced above, and, in addition, have determined (i) the price at which the Facility could be reacquired from the current owners, or otherwise continued to be operated with City municipal solid waste and (ii) how, in what form and at what price the energy produced by the Facility after July 1, 2009 would be sold, we cannot provide any of the various annual operating models for your review.

We know the deadlines are tight, and will be seeking to adjust them so that we, and the Council, will have sufficient time to make a thoughtful decision.

Sincerely,

John W. Prymack

Director

Enclosure

cc: Anthony Adams, Chairperson

The 2007 IWSA Directory of Waste-to-Energy Plants



By Ted Michaels

he 2007 IWSA Directory of Waste-to-Energy Plants provides current information about the waste-to-energy industry in the United States. Since this Directory was last published in 2004, the environment in which waste-to-energy plants exist has begun to change. Many communities are placing premiums on energy sources that reduce greenhouse gas emissions and the nation's dependency on foreign oil and fossil fuels. In addition, there is a continued need to manage a growing waste stream. Despite efforts to increase recycling, the average amount of waste generated per person continues to grow. As a result, communities are once again looking to waste-to-energy technology to safely manage solid waste and to produce clean, renewable, and climate friendly power.

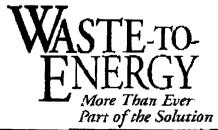
As the country continues to focus on energy solutions that will reduce greenhouse gas emissions, waste-to-energy is poised to play an important role. The first new capacity in a decade is being added in Florida as the Lee County and Hillsborough County facilities expand their existing facilities by fifty percent each. Other existing facilities are actively considering expansions. Several communities have out requests for proposals to construct new greenfield facilities. While this Directory provides a snapshot of the industry in 2007, it seems clear that the industry is about to undergo exciting changes.

In 2007, 87 plants operate in 25 states and process 28.7 million tons of trash according to the latest estimates published in *Biocycle*. Electric generating capacity is estimated at 2,720 megawatts. The fact that waste-to-energy provides baseload power and that most plants operate in excess of 90 percent of the time translates to a significant number of renewable kilowatt-hours produced by waste-to-energy. As a result, waste-to-energy facilities generate approximately 17 billion kilowatt-hours annually, which is roughly 20 percent of the nation's non-hydroelectric renewable energy.

As the waste-to-energy industry continues to evolve to meet the demands and challenges of the communities it serves and as the nation's public policies are shaped, IWSA will ensure that waste-to-energy is a valued and recognized solution to the nation's energy and waste management challenges.

The Integrated Waste Services Association (IWSA) was formed in 1991 to promote integrated solutions to municipal solid waste management challenges. IWSA encourages the use of waste-to-energy technology as an integral component of a comprehensive integrated solid waste management.

integral component of a comprehensive, integrated solid waste management program. In addition to providing essential trash disposal services cities and towns across the country, today's waste-to-energy plants generate clean, renewable energy. Through the combustion of everyday household trash in facilities with state-of-the-art environmental controls, IWSA's members provide viable alternatives to communities that would otherwise have no alternative but to buy power from conventional power plants and dispose of their trash in landfills.



Waste-to-Energy Reduces Greenhouse Gas Emissions

Waste-to-energy plants are tremendously valuable contributors in the fight against global warming. According to the U.S. EPA, nearly one ton of CO₂ equivalent emissions are avoided for every ton of municipal solid waste handled by a waste-to-energy plant due to the following:

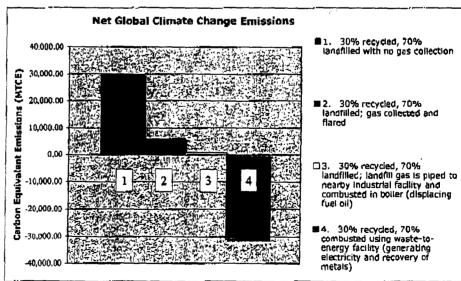
- Avoided methane emissions from landfills. When a top of solid waste is delivered to a waste-to-energy facility, the methane that would have been generated if it were sent to a landfill is avoided. While some of this methane could be collected and used to generate electricity, some would not be captured and would be emitted to the atmosphere.
- Avoided CO₂ emissions from fossil fuel combustion. When a megawatt of electricity is generated by a waste-to-energy facility, an increase in carbon dioxide emissions that would have been generated by a fossil-fuel fired power plant is avoided.
- Avoided CO₂ emissions from metals production. Waste-to-energy plants recover more than 700,000 tons of ferrous metals for recycling annually. Recycling metals saves energy and avoids CO₂ emissions that would have been emitted if virgin materials were mined and new metals were manufactured, such as steel.

The United States Conference of Mayors adopted a resolution in 2005 endorsing the U.S. Mayors Climate Protection Agreement, which identifies waste-to-energy as a clean, alternative energy source which can help reduce greenhouse gas emissions. As of June 30, 2007, over 500 mayors have signed the agreement.

Recently, the Global Roundtable on Climate Change, an initiative sponsored by The Earth Institute at Colum-

bia University, issued a statement on climate change indicating that decarbonization of the economy can be achieved through "the use of non-fossil-fuel-based sources...such as "wind, geothermal, hydro, tidal, wave, nuclear, waste-to-energy, and/or biomass. Efforts to reduce global emissions of methane from landfills should be expanded, including increased use of waste-to-energy facilities where appropriate and cost-effective."

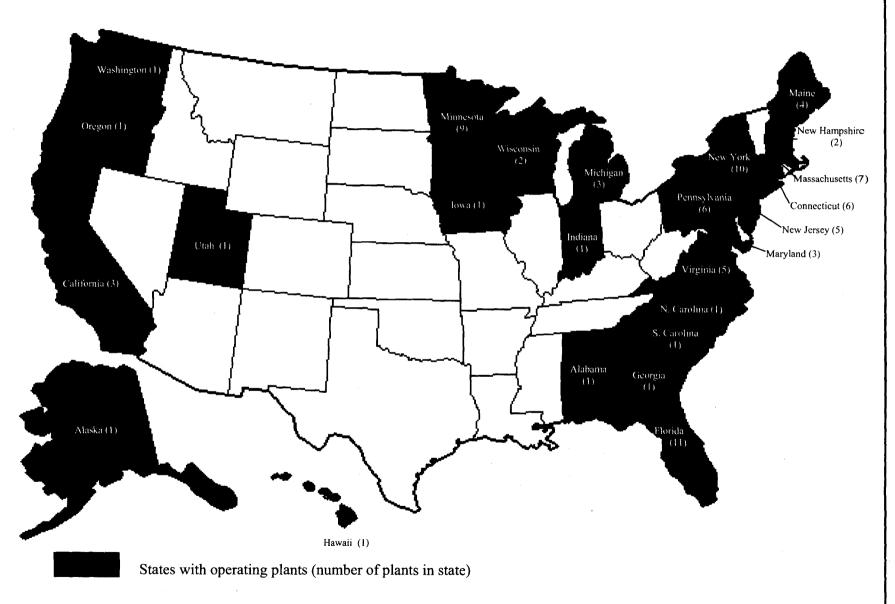
The European Union Emission
Trading Scheme explicitly excludes municipal waste combustion from the cap and trade program due to the ability of waste-to-energy



Data Source: Thorneloe SA, Weitz K, Jambeck J. Application of the U.S. Decision Support Tool for Materials and Waste Management. WM Journal 2006 August.

to reduce greenhouse gas emissions and divert waste from landfills.

Operating WTE Plants in the U.S. — By State



Source: Ted Michaels, Integrated Waste Services Association, June 2007.



Michigan Waste Energy Emission Results

Pre and Post Retrofit Emissions

| | 1989 Actual Results (ESP) | 2004 – 2006 <u>Actual Results</u> | % Below ESP Result |
|------------------------|------------------------------|--------------------------------------|-----------------------|
| Particulate (mg/dscm) | 13.69/Unit (avg) | 1.7033/Unit (avg) | 87.6% |
| Dioxin/Furan (ng/dscm) | 5107.5/Unit (avg) | 5.5/Unit (avg) | 99.9% |
| Mercury (mg/dscm) | 0.7241/Unit (avg) | 0.0013/Unit (avg) | 99.8% |
| Lead (mg/dscm) | 0.9480/Unit (avg) | 0.0084/Unit (avg) | 99.1% |
| Cadmium (mg/dscm) | 0.0101/Unit (avg) | 0.0002/Unit (avg) | 98.0% |
| CO (ppm) | 183.15 (24 hr avg) | 54.88 (24 hr avg) | 29.9% |
| NOx (ppm) | 209 (24 hr avg) | 203.11 (24 hr avg) | 2.8% |
| SO2 (ppm) | 135.27/Unit (avg) | 13.66/Unit (avg) | 89.9% |
| HCI (ppm) | 546.31/Unit (avg) | 4.60/Unit (avg) | 99.2% |

Note: All concentrations corrected to 7% oxygen.



Michigan Waste Energy Emission Results

Actual vs. Allowable Emissions

| | Permit <u>Limit/Unit</u> | 2004 - 2006 Actual Results Corrected to 7% oxygen | % Below <u>Limit</u> |
|---------------------------|-----------------------------|---|-------------------------|
| Particulate (mg/dscm) | 27 | 1.7033/Unit (avg) | 93.7% |
| Dioxin/Furan (ng/dscm) | 30 | 5.4867/Unit (avg) | 81.7% |
| Mercury (mg/dscm) | 0.080 | 0.0013/Unit (avg) | 98.4% |
| Lead (mg/dscm) | 0.44 | 0.0084/Unit (avg) | 98.1% |
| Cadmium (mg/dscm) | 0.040 | 0.0002/Unit (avg) | 99.4% |
| SO2 (ppm) | 29 | 13.66/Unit (avg) | 52.9% |
| NOX (ppm) | 250 | 203.11/Unit (avg) | 18.8% |
| HCI (ppm) | 25 | 4.60/Unit (avg) | 81.6% |